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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YOON, TAE H

ART UNIT PAPER NUMBER

1714

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/96/412

Applicant(s)

Kajimaru et al

Examiner

T. Yoon

Group Art Unit

1714

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-12 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-12 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All ☐ Some* ☐ None of the:

- ☒ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- (e) (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a); or

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lewarchik et al (US 5,484,842).

Lewarchik et al teach the instant aqueous polyester dispersion free of an organic solvent and a coating thereof with a curing agent (Cymel) in abstract, examples and claim 10. The acid

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numbers of 30-100 and the weight average molecular weight of 1000-20,000 encompass the instantly claimed values. Thus, the instant invention lacks novelty.

Claims 1, 2, 9 and 10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hintze-Bruning et al (US 6,180,180).

Hintze-Bruning et al teach aqueous composition comprising a polyester (A1) dispersion in abstract and at col. 18, lines 24-44 wherein an acid number of 36.4 is seen. Said polyester (A1) has the instant molecular weight (col. 3, line 62-col. 4, line 10), and note that the weight average molecular weight of a polymer is higher than the number average molecular weight since the polydispersity (M_n/M_w) of a polymer is higher than 1. Example at col. 18, lines 24-44 utilizing multifunctional polyol, neopentyl glycol, would have yielded a high polydispersity due to branching. The use of an organic solvent in the aqueous coating composition is taught as an optional practice, 0-20 wt.%, at col. 17, lines 29-40. Thus, the instant invention lacks novelty.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as obvious over Hintze-Bruning et al (US 6,180,180) alone, or in view of Fujita et al (US 5,869,567).

Hintze-Bruning et al teach employing two polyols at col. 18, lines 24-44, and the instant ethylene glycol and propanediols at col. 4, line 53. Also, the removal of cyclohexane and isopropoxypropanol from the dispersion of a polyester (A1) in order to obtain the aqueous coating composition without an organic solvent would be a *prima facie* obviousness since Hintze-

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Bruning et al teach an organic solvent being an option. Fujita et al teach an aqueous dispersion of a polyester using ethylene glycol and neopentyl glycol in table 1.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize ethylene glycol and neopentyl glycol or ethylene glycol and propanediol in said teaching at col. 18, lines 24-44 of Hintze-Bruning et al without/ or with teaching of Fujita et al since Hintze-Bruning et al suggest the use of such polyols, and further to remove organic solvents from the coating composition thereof since Hintze-Bruning et al teach an organic solvent being an option and since a coating composition without or very little organic solvent is a preferred practice due to a consideration of the health and environment.

Claims 1-3 and 9-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tachika et al (US 5,356,989).

Tachika et al teach an aqueous polyester dispersion of polyester in abstract. Polyesters are taught in table 1 wherein the instant molecular weight (M_w is higher than M_n) is seen. Acid numbers of said table meet the instant acid values in view of teaching at col. 5, lines 48-59. Note that an organic solvent is an optional component as evidenced by teaching at col. 2, line 65, $B/(B+C) = 0 - 0.7$. The use of crosslinking agents is taught at col. 8, lines 25-35. Thus, the instant invention lacks novelty.

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Claims 1-4 and 9-12 are rejected under 35 U.S.C. 103(a) as obvious over Tachika et al (US 5,356,989).

The instant claim 4 recites ethylene glycol and 1,2-propanediol (propylene glycol) over Tachika et al. But, Tachika et al teach the use of a mixture of polyols in table 1 and said 1,2-propanediol (propylene glycol) at col. 5, lines 30-31.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize ethylene glycol and 1,2-propanediol in examples of Tachika et al and to obtain an organic solvent-free aqueous coating composition thereof since Tachika et al teach the use of a mixture of polyols in table 1 and equate various polyols and since Tachika et al teach an organic solvent being an option and since a coating composition without an organic solvent is a preferred practice due to a consideration of the health and environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Monday to Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

THY/June 24, 2003



TAE H. YOON
PRIMARY EXAMINER